

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: August 28, 2003, 02:51:09 ; Search time 44 seconds

(without alignments)
513.628 Million cell updates/sec

Title: US-09-308-829-2

Perfect score: 1232
Sequence: 1 MKKINIKIIVITVILIST.....KDNRIINMKNFSPHDIYLEK 235

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 283308

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :
1: p1r1:*
2: p1r2:*
3: p1r3:*
4: p1r4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1232	100.0	235	2 A30509	exotoxin C precurs
2	226	18.3	240	2 G89991	extracellular ente
3	219	17.8	258	2 A33953	enterotoxin D prec
4	211	17.1	251	1 S29659	exotoxin type A pr
5	210	17.0	239	2 D89969	enterotoxin SEM li
6	197.5	16.0	242	2 C89969	extracellular ente
7	195	15.8	236	2 S18783	exotoxin type A pr
8	190	15.4	236	2 S18786	exotoxin type A pr
9	185.5	15.1	257	2 A28179	enterotoxin E prec
10	183	14.9	266	2 S11885	enterotoxin C3 - S
11	182.5	14.8	260	2 C89984	enterotoxin P lim
12	182.5	14.8	260	2 E89969	enterotoxin Seo li
13	178.5	14.5	266	2 A60114	enterotoxin C-2 pr
14	177.5	14.4	257	2 A28664	enterotoxin A prec
15	175	14.2	236	2 S18789	exotoxin A precurs
16	175	14.2	258	2 G89968	extracellular ente
17	171.5	13.9	266	1 ENSAC1	enterotoxin C-1 pr
18	170	13.8	258	2 H89968	enterotoxin Sen li
19	167.5	13.6	266	1 ENSAB6	enterotoxin B prec
20	165.5	13.4	227	2 G89807	exotoxin 14 limpor
21	162.5	13.2	232	2 F89807	exotoxin 13 limpor
22	160	13.0	232	2 E89807	exotoxin 12 limpor
23	160	13.0	250	1 A26152	streptococcal pyro
24	150.5	12.2	231	2 D89807	exotoxin 11 limpor
25	145	11.8	292	2 B89807	exotoxin 8 limpor
26	141.5	11.5	356	2 A89807	hypothetical prote
27	131	10.6	241	2 B89888	hypothetical prote
28	129.5	10.5	136	2 A89969	enterotoxin YENT2
29	127.5	10.3	231	2 H89806	exotoxin 7 limpor

30	121.5	9.9	234	2 C89807	exotoxin 10 limpor
31	118	9.6	241	2 C89888	hypothetical prote
32	114	9.3	238	2 A89888	hypothetical prote
33	113.5	9.2	227	2 C89808	exotoxin 15 limpor
34	110.5	9.0	1817	2 H71611	probable secreted
35	106	8.6	469	2 B90110	TATA box-binding p
36	104.5	8.5	226	2 G89806	exotoxin 6 limpor
37	104.5	8.5	1844	2 D71612	hypothetical prote
38	102	8.3	626	2 E82273	accessory coloniza
39	102	8.3	1802	2 G71616	hypothetical prote
40	101	8.2	322	2 T28190	hypothetical prote
41	101	8.2	1650	2 T18444	hypothetical prote
42	99.5	8.1	2437	2 T18482	hypothetical prote
43	97.5	7.9	255	2 F89769	hypothetical prote
44	97.5	7.9	992	2 T28421	probable DNA-direc
45	97	7.9	194	2 F97209	probable membrane

ALIGNMENTS

RESULT 1

A30509
exotoxin C precursor - Streptococcus pyogenes
C:Species: Streptococcus pyogenes
C:Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 17-Mar-2000
C:Accession: A30509
R:Goshorn, S.C.; Schlievert, P.M.
Infect. Immun. 56, 2518-2520, 1988
A:Title: Nucleotide sequence of streptococcal pyrogenic exotoxin type C.
A:Reference number: A30509; MUID:88314303; PMID:3045005
A:Accession: A30509

A:Molecule type: DNA
A:Residues: 1-235 <GOS>
A:Cross-references: GB:M35514; NID:g153820; PIDN:AAA27017.1; PID:g153821
C:Superfamily: enterotoxin B
C:Keywords: exotoxin

Query Match 100.0%; Score 1232; DB 2; Length 235;
Best Local Similarity 100.0%; Pred. No. 3e-87;
Matches 235; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKKINIKIIVITVILISTFTYTHQSDSKDISNKSDDLVAATTIPYDKCRVNFST 60
DB 1 MKKINIKIIVITVILISTFTYTHQSDSKDISNKSDDLVAATTIPYDKCRVNFST 60
QY 61 THTLNIDTQYRGKDYIISSEMSYASQKFRDDHVDVFGULFYILNSHTGEYIVGITPA 120
DB 61 THTLNIDTQYRGKDYIISSEMSYASQKFRDDHVDVFGULFYILNSHTGEYIVGITPA 120
QY 121 QNNKVNHLKLGNEIFSGESQONLNKILIEKDIYFQEDFKRKYLMDYKTIYDASPY 180
DB 121 QNNKVNHLKLGNEIFSGESQONLNKILIEKDIYFQEDFKRKYLMDYKTIYDASPY 180
QY 181 VSGRIEIGTQDKGHEQIDLFDSPEGTRSDIFAFYKKNRIINMKNFSPHDIYLEK 235
DB 181 VSGRIEIGTQDKGHEQIDLFDSPEGTRSDIFAFYKKNRIINMKNFSPHDIYLEK 235

RESULT 2

G89991
extracellular enterotoxin L [imported] - Staphylococcus aureus (strain N315)
C:Species: Staphylococcus aureus
C:Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 22-Oct-2001
C:Accession: G89991
R:Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; O
ma, A.; Mitutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, K
C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K.
Lancet 357, 1225-1240, 2001
A:Title: Whole genome sequencing of methicillin-resistant Staphylococcus aureus.
A:Reference number: A89758; MUID:21311952; PMID:11418146
A:Accession: G89991
A:Status: preliminary

A:Cross-references: EMBL:X61569; NID:g47313; PION:CAA43767.1; PID:g47314
A:Experimental source: strain MGAS485 isolate Yugoslavia Unassigned phage
A:Note: the nucleotide sequence was submitted to the EMBL Data Library, September 1991
A:Accession: S18794
A>Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-236 <NE>
A:Cross-references: EMBL:X61570; NID:g47315; PION:CAA43768.1; PID:g47316
A:Experimental source: strain MGAS491 isolate United Kingdom Unassigned phage
A:Note: the nucleotide sequence was submitted to the EMBL Data Library, September 1991
A:Accession: S18801
A>Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-236 <NE>
A:Cross-references: EMBL:X61572; NID:g47333; PION:CAA43770.1; PID:g47334
A:Experimental source: strain MGAS624 isolate Germany unassigned phage
A:Note: the nucleotide sequence was submitted to the EMBL Data Library, September 1991
A:Accession: S18798
A>Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-236 <NEO>
A:Cross-references: EMBL:X61571; NID:g47323; PION:CAA43769.1; PID:g47324
A:Experimental source: strain MGAS495 isolate Germany unassigned phage
A:Note: the nucleotide sequence was submitted to the EMBL Data Library, September 1991
A:Accession: S18799
A:Gene: speA3
C:Superfamily: enterotoxin B
C:Keywords: exotoxin
F:1-22/Domain: signal sequence (fragment) #status predicted <SIG>
F:23-236/Product: exotoxin type A (fragment) #status predicted <MAT>

Query Match 15.8%; Score 195; DB 2; Length 236;
Best Local Similarity 26.9%; Pred. No. 8e+08;
Matches 65; Conservative 51; Mismatches 86; Indels 40; Gaps 12;

OY 8 KIVFIITYILISTFT-----YQSSSKDISNVKSDLLXATITPYDKDC 54
|::||:| |::| |::| |::| |::| |::| |::| |::| |::|
DB 2 KMFEFLVLTFGTLTISQVFQAQDDPSQLRSSLVKLNQI---YFLGDPVTHTNV 57
|::|::| |::| |::| |::| |::| |::| |::| |::| |::| |::|
OY 55 R-VNFSSTHTLTINDTKRYGRDY-YISEMSYEASOKRRDHDVDFGL-FYIL-----N 106
|::|::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::|
DB 58 KSVDDLHSLDIYNVS--GNPYDKLKTLEKNQEMATLFCKNDIDIVEEYHHCLVCEN 114
|::|::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::|
OY 107 SHTGXYIGGTTPANNNKVNH----KLGLFLTSGEQQNLNNKKILLERDIVTFQETDF 161
|::|::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::|
DB 115 AERSACTYGGVT---NHGNNLELPKRIKVAVNSIDG--IOSLSPIETNNKMVAQELDY 169
|::|::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::|
OY 162 KIRKYLMDNMYTY-DATSPYVSGRIEICTKGDKHEQIDLFPSPMEGTRSDFFAKKDNR 220
|::|::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::|
DB 170 KVRYLTDNQKLYINGPSPKETGYIKFRPKNKESFWDFPEEP-EFQOSKMLMIYKNRET 228
|::|::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::| |::|

OY 221 IN 222
:::
DB 229 LD 230

RESULT 8
S18786
exotoxin type A precursor (allele 2) - Streptococcus pyogenes phage (strain MGAS250 isol)
N:Alternate names: scarlet fever toxin
C:Species: Streptococcus pyogenes phage
A:Variety: strain MGAS250 isolate California; strain MGAS251 isolate California; strain
isolate United Kingdom; strain MGAS496 isolate Germany
C:date: 29-Jan-1993 #sequence-revision 29-Jan-1993 #text-change 16-Jul-1999
C:Accession: S18786; S18787; S18788; S18790; S18792; S18795; S18799
R:Nelson, K.; Schlievert, P.M.; Selander, R.K.; Musser, J.M.
J. Exp. Med. 174, 1271-1274, 1991
A>Title: Characterization and clonal distribution of four alleles of the speA gene encod
A:Reference number: S18782; MUID:92044323; PMID:1940804
A:Accession: S18786
A>Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: DNA
A:Residues: 1-236 <NEU>

[illegible]

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